SERVICE MANUAL
Level 1&2

NOKIA 6720 CLASSIC

RM-424 / RM-564

Transceiver characteristics

Band:
RM-424: GSM/EDGE 850/900/1800/1900
RM-424: WCDMA 900/1900/2100

RM-564: GSM/EDGE 850/900/1800/1900
RM-564: WCDMA 850/1900/2100

Display:
2,2" QVGA (320x240), 16M colour TFT

Camera:
Main camera: 5MPix CMOS, Dual Flash, Autofocus
Secondary camera: CIF+ CMOS

Operating System:
Symbian OS 9.3 / S60 3rd Edition Feature Pack 2

Connections:
2 mm charger, 3,5mm AV connector, Bluetooth 2.0 EDR, USB 2.0 (Micro USB), A-GPS

Transceiver with BP-6MT battery pack

Talk time	Standby	Note
GSM: Up to 8.5 hours **WCDMA:** Up to 5 hours	**GSM:** Up to 500 hours **WCDMA:** Up to 500 hours	Talk times are dependant on network parameters and phone settings

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Table of contents

1. Change history 3

2. Copyright 4

3. Warnings and cautions 5

3.1 Warnings 5

3.2 Cautions 5

4. ESD protection 6

5. Care and maintenance 7

6. Battery information 8

7. Exploded view 9

8. Service devices 10

9. SW-update 11

10. Disassembly instruction 12

11. Assembly hints 18

12. Solder components 19

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1. CHANGE HISTORY

Status	Version No.	Date	Comments
Approved	1.0	03.03.2009	Approved

The purpose of this document is to help NOKIA service levels 1 and 2 workshop technicians to carry out service to NOKIA products. This Service Manual is to be used only by authorized NOKIA service suppliers, and the content of it is confidential. Please note that NOKIA provides also other guidance documents (e.g. Service Bulletins) for service suppliers, follow these regularly and comply with the given instructions.

While every endeavor has been made to ensure the accuracy of this document, some errors may exist. If you find any errors or if you have further suggestions, please notify NOKIA using the address below:

CMO Operation & Logistics
Training and Vendor Development
Multimedia Creation & Support
mailto:Service.Manuals@nokia.com

Please keep in mind also that this documentation is continuously being updated and modified, so watch always out for the newest version.

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The availability of particular products may vary by region.

IMPORTANT

This document is intended for use by qualified service personnel only.

3. WARNINGS AND CAUTIONS

Please refer to the phone's user guide for instructions relating to operation, care and maintenance including important safety information. Note also the following:

3.1 Warnings

1. CARE MUST BE TAKEN ON INSTALLATION IN VEHICLES FITTED WITH ELECTRONIC ENGINE MANAGEMENT SYSTEMS AND ANTI–SKID BRAKING SYSTEMS. UNDER CERTAIN FAULT CONDITIONS, EMITTED RF ENERGY CAN AFFECT THEIR OPERATION. IF NECESSARY, CONSULT THE VEHICLE DEALER/MANUFACTURER TO DETERMINE THE IMMUNITY OF VEHICLE ELECTRONIC SYSTEMS TO RF ENERGY.

2. THE HANDPORTABLE TELEPHONE MUST NOT BE OPERATED IN AREAS LIKELY TO CONTAIN POTENTIALLY EXPLOSIVE ATMOSPHERES, EG PETROL STATIONS (SERVICE STATIONS), BLASTING AREAS ETC.

3. OPERATION OF ANY RADIO TRANSMITTING EQUIPMENT, INCLUDING CELLULAR TELEPHONES, MAY INTERFERE WITH THE FUNCTIONALITY OF INADEQUATELY PROTECTED MEDICAL DEVICES. CONSULT A PHYSICIAN OR THE MANUFACTURER OF THE MEDICAL DEVICE IF YOU HAVE ANY QUESTIONS. OTHER ELECTRONIC EQUIPMENT MAY ALSO BE SUBJECT TO INTERFERENCE.

3.2 Cautions

1. Servicing and alignment must be undertaken by qualified personnel only.

2. Ensure all work is carried out at an anti–static workstation and that an anti–static wrist strap is worn.

3. Use only approved components as specified in the parts list.

4. Ensure all components, modules screws and insulators are correctly re–fitted after servicing and alignment.

5. Ensure all cables and wires are repositioned correctly

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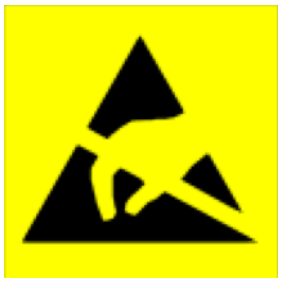
4. ESD PROTECTION



Nokia requires that service points have sufficient ESD protection (against static electricity) when servicing the phone.

Any product of which the covers are removed must be handled with ESD protection. The SIM card can be replaced without ESD protection if the product is otherwise ready for use.

To replace the covers ESD protection must be applied.

All electronic parts of the product are susceptible to ESD. Resistors, too, can be damaged by static electricity discharge.

All ESD sensitive parts must be packed in metallized protective bags during shipping and handling outside any ESD Protected Area (EPA).

Every repair action involving opening the product or handling the product components must be done under ESD protection.

ESD protected spare part packages MUST NOT be opened/closed out of an ESD Protected Area.

For more information and local requirements about ESD protection and ESD Protected Area, contact your local Nokia After Market Services representative.

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5. CARE AND MAINTENANCE

This product is of superior design and craftsmanship and should be treated with care. The suggestions below will help you to fulfil any warranty obligations and to enjoy this product for many years.

- Keep the phone and all its parts and accessories out of the reach of small children.
- Keep the phone dry. Precipitation, humidity and all types of liquids or moisture can contain minerals that will corrode electronic circuits.
- Do not use or store the phone in dusty, dirty areas. Its moving parts can be damaged.
- Do not store the phone in hot areas. High temperatures can shorten the life of electronic devices, damage batteries, and warp or melt certain plastics.
- Do not store the phone in cold areas. When it warms up (to its normal temperature), moisture can form inside, which may damage electronic circuit boards.
- Do not drop, knock or shake the phone. Rough handling can break internal circuit boards.
- Do not use harsh chemicals, cleaning solvents, or strong detergents to clean the phone.
- Do not paint the phone. Paint can clog the moving parts and prevent proper operation.
- Use only the supplied or an approved replacement antenna. Unauthorised antennas, modifications or attachments could damage the phone and may violate regulations governing radio devices.

All of the above suggestions apply equally to the product, battery, charger or any accessory.

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6. BATTERY INFORMATION

Note: A new battery's full performance is achieved only after two or three complete charge and discharge cycles! The battery can be charged and discharged hundreds of times but it will eventually wear out.

When the operating time (talk-time and standby time) is noticeably shorter than normal, it is time to buy a new battery. Use only batteries approved by the phone manufacturer and recharge the battery only with the chargers approved by the manufacturer.

Unplug the charger when not in use. Do not leave the battery connected to a charger for longer than a week, since overcharging may shorten its lifetime.

If left unused a fully charged battery will discharge itself over time Temperature extremes can affect the ability of your battery to charge.

For good operation times with Ni-Cd/NiMh batteries, discharge the battery from time to time by leaving the product switched on until it turns itself off (or by using the battery discharge facility of any approved accessory available for the product).

Do not attempt to discharge the battery by any other means Use the battery only for its intended purpose.

Never use any charger or battery which is damaged.

Do not short-circuit the battery. Accidental short-circuiting can occur when a metallic object (coin, clip or pen) causes direct connection of the + and - terminals of the battery (metal strips on the battery) for example when you carry a spare battery in your pocket or purse. Shortcircuiting the terminals may damage the battery or the connecting object.

Leaving the battery in hot or cold places, such as in a closed car in summer or winter conditions, will reduce the capacity and lifetime of the battery. Always try to keep the battery between 15°C and 25°C (59°F and 77°F).

A phone with a hot or cold battery may temporarily not work, even when the battery is fully charged. Batteries' performance is particularly limited in temperatures well below freezing.

Do not dispose batteries in a fire! Dispose of batteries according to local regulations (e.g. recycling).

Do not dispose as household waste.

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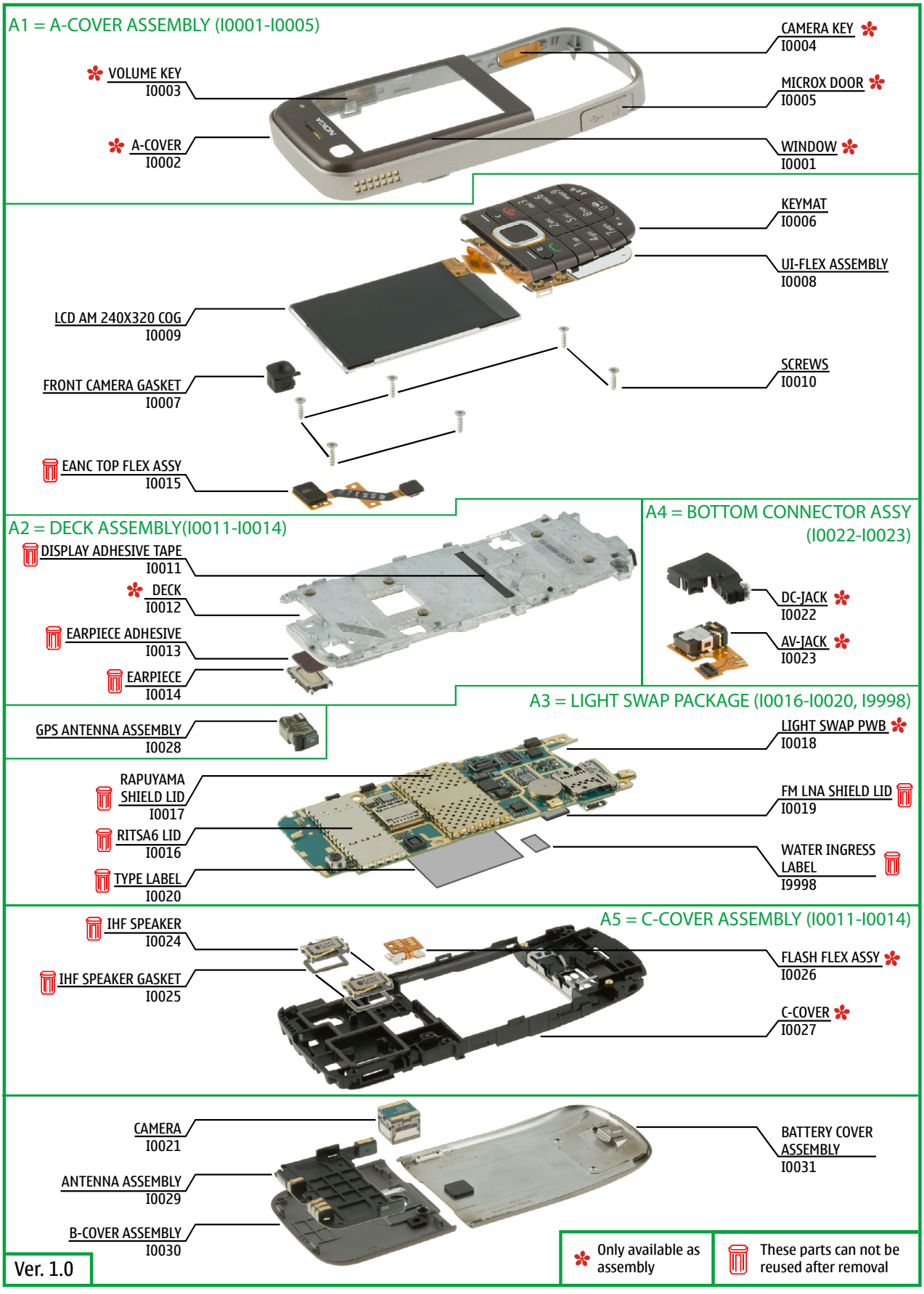
7. EXPLODED VIEW



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8. SERVICE DEVICES

FLS-5 Flash Device	CA-101 Service Cable	AC-8E Travel Charger
BP-6MT Battery	SS-100 Camera Removal Tool	**NMP standard toolkit (v2)** For more information, refer to the Service Bulletin (SB-011) on NOKIA Online. Supplier or manufacturer contacts for tool re-order can be found in “Recommended service equipment” document on NOKIA Online.

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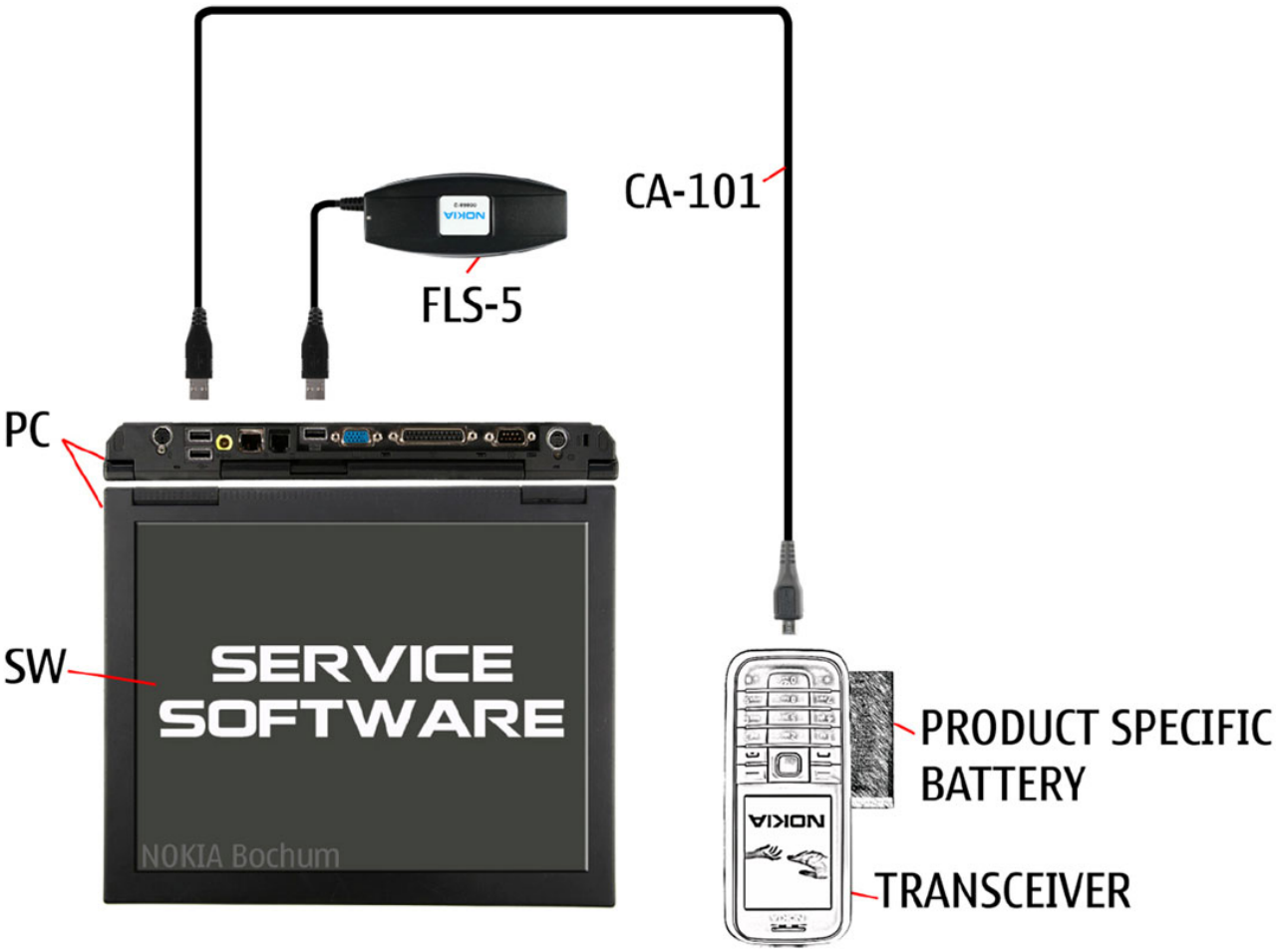
9. SW-UPDATE

Flash concept- (Point of Sales)

To use the FLS-5 Flash Dongle, you have to follow the user guide inside the sales package.
Please check always for the latest version of flash software, wich is available on Nokia Online.



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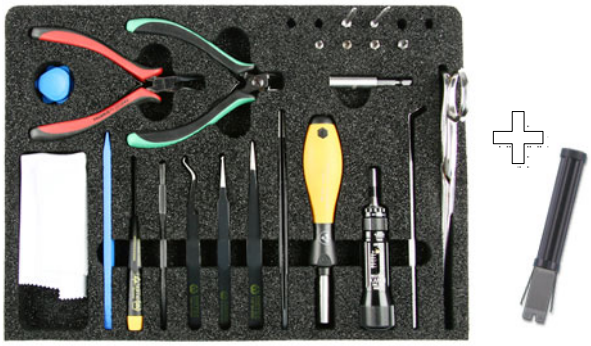
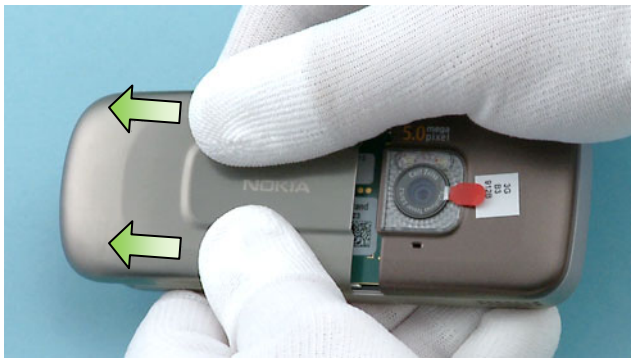
10. DISASSEMBLY INSTRUCTION

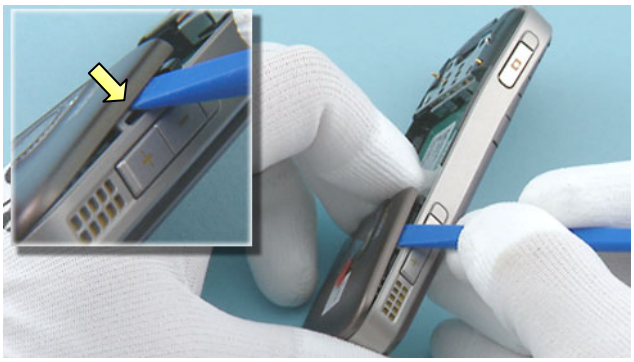
1) Nokia 6720 classic disassembly



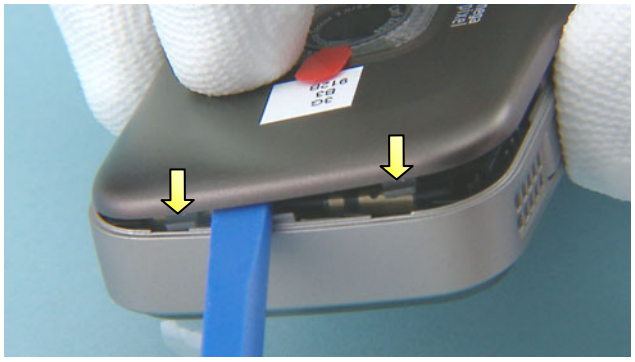
2) You must use the Nokia Standard Toolkit version 2. You will also need the SS-100 Camera removal tool.



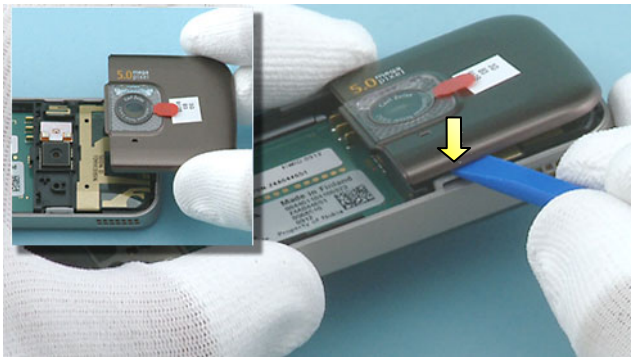
3) Remove the BATTERY COVER ASSEMBLY by sliding it in the direction shown with both thumbs placed on shown places. Be careful not to bend the cover.



4) Open the B-COVER ASSEMBLY with the SS-93. Begin to release the cover from the VOLUME KEY SIDE.



5) Continue to release the B-COVER ASSEMBLY from the top side by releasing the shown two clips.



6) After releasing the last clip the B-COVER can be removed.

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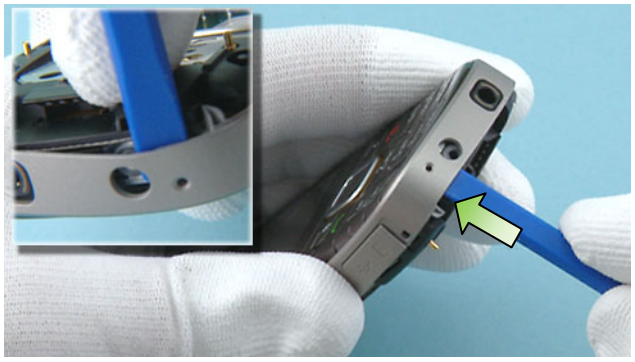
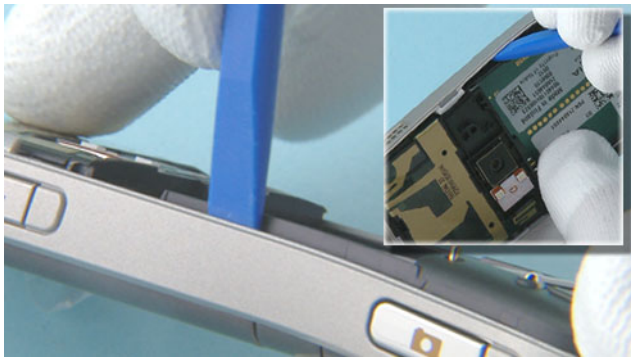
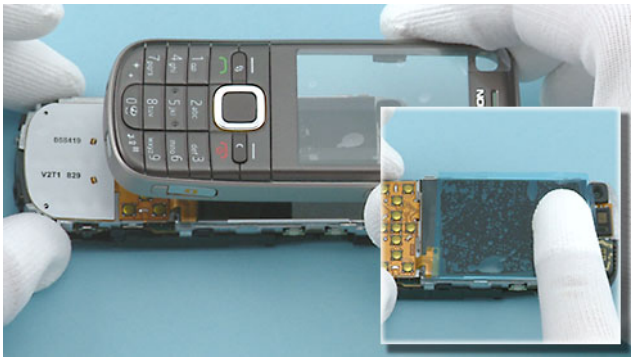


7) Begin to release the A-COVER ASSEMBLY with the SS-93 around the DC-JACK area as shown.

8) Continue to release the A-COVER ASSEMBLY around the AV-JACK area as shown. Be very careful not to bend the A-COVER ASSEMBLY!

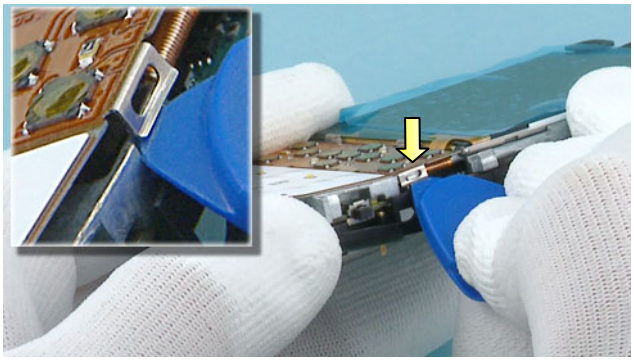


9) Finally release both sides of the A-COVER ASSEMBLY with the SS-93 as shown.



10) The A-COVER ASSEMBLY can now be removed. Remember to protect the LCD with protective film.

11) Separate the KEYMAT from the A-COVER by pressing the KEYMAT lightly.



12) Use the SRT-6 to open the small clip on the right side of the UI-FLEX ASSEMBLY.

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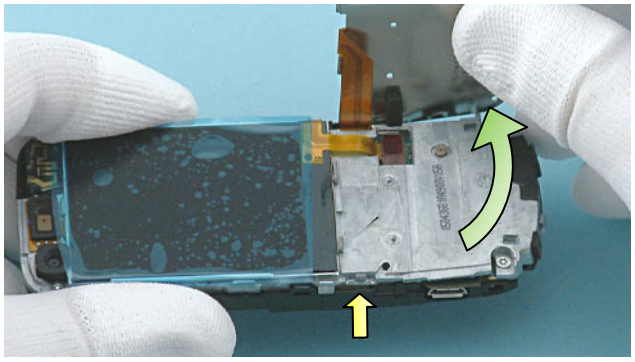
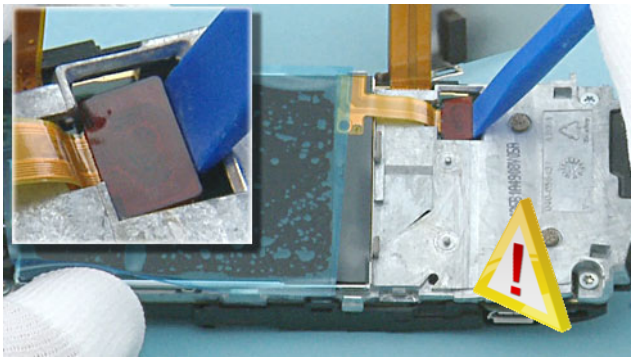
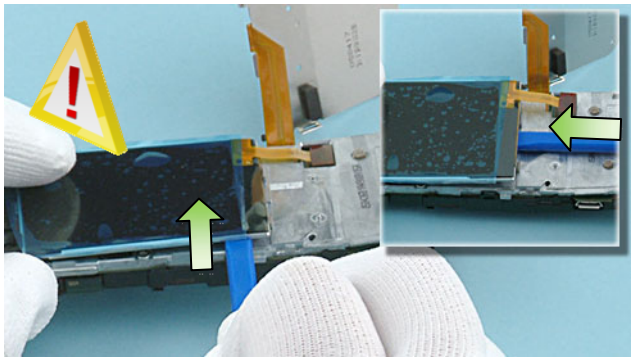


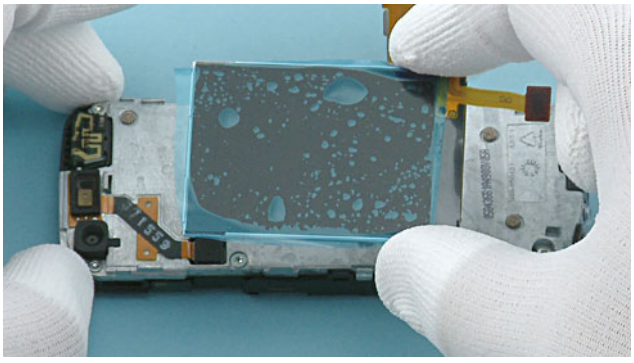
13) The clip located on the left side of the UI-FLEX ASSEMBLY can be simply released by lifting the UI-FLEX ASSEMBLY carefully up.



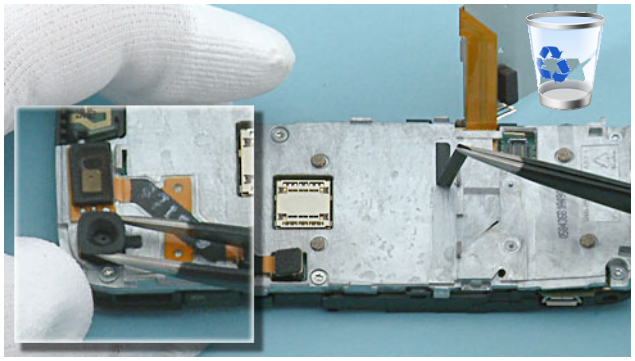
14) Use the SS-93 to open the LCD connector. Be careful not to damage the connector!



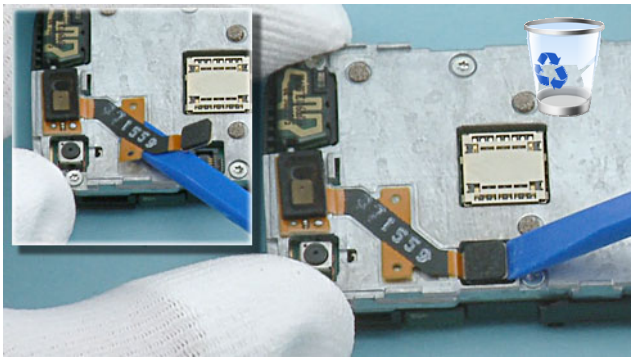
15) Release the LCD by pushing the SS-93 carefully in to shown place. If the LCD starts to bend, help from the middle of the LCD as shown in the small picture.



16) Remove the LCD. If there are some adhesive stains on the back of the LCD remove them with the SS-93.



17) Use the tweezers to remove the FRONT CAMERA GASKET and the DISPLAY ADHESIVE TAPE. The DISPLAY ADHESIVE TAPE cannot be used again. Discard it.



18) Open the EANC TOP FLEX ASSY connector with the SS-93. The EANC TOP FLEX ASSY is only removed when it is broken. In that case do not use it again. Discard it. Replace the new EANC TOP FLEX ASSY immediately.

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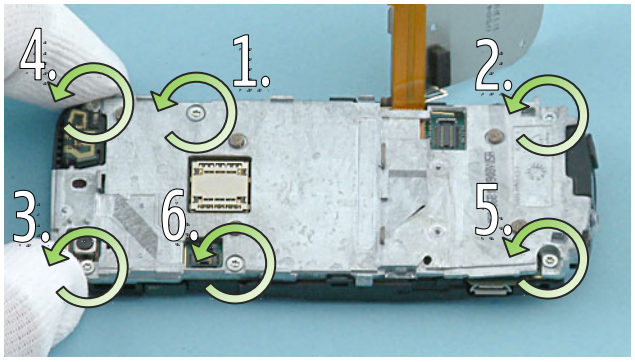
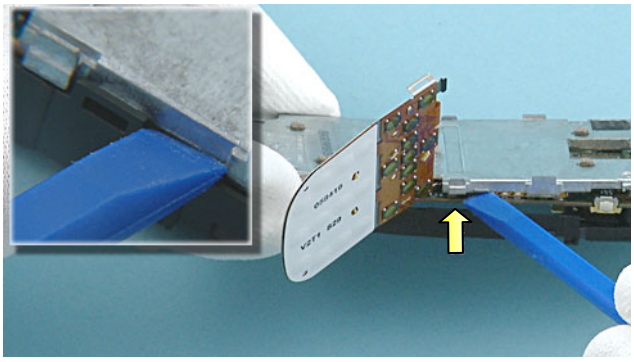
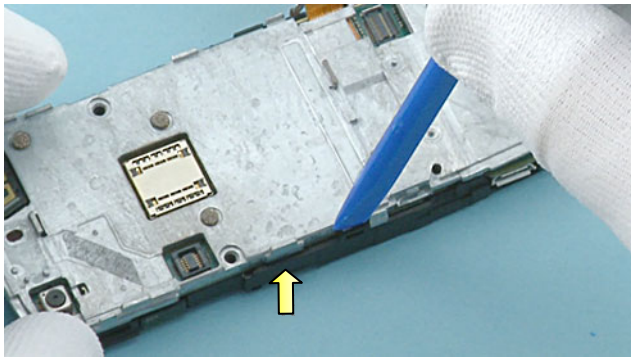


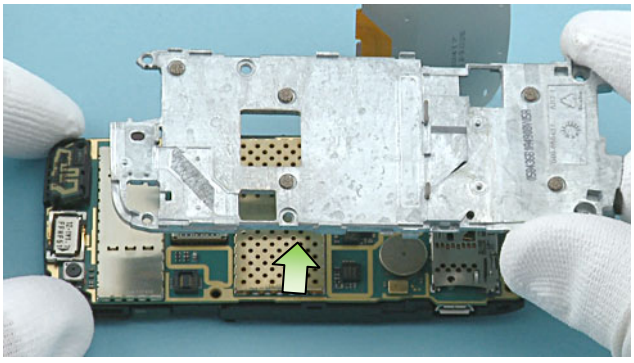
19) Unscrew the six Torx+ 5 screws in the order shown.



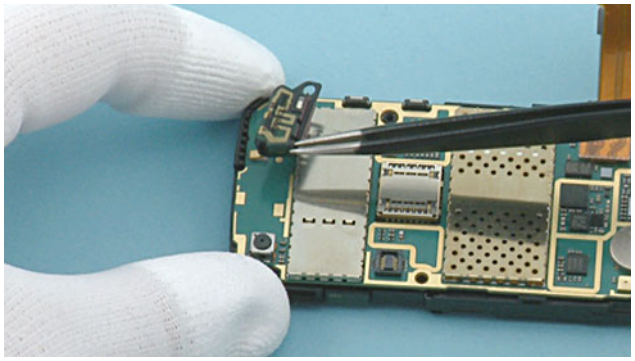
20) Release the clip holding the DECK ASSEMBLY with the SS-93...



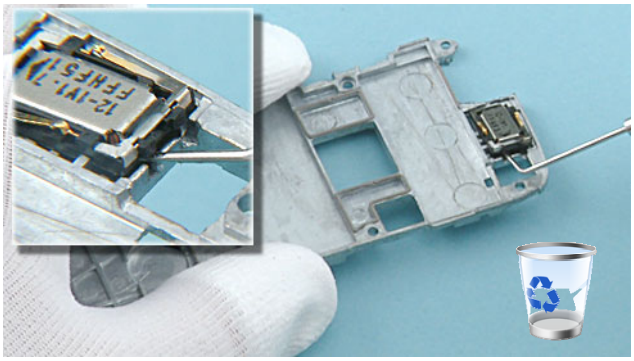
21) ... and do the same on the other side.



22) Then separate the DECK ASSEMBLY by lifting it directly up.



23) Use the tweezers to remove the GPS ANTENNA ASSEMBLY.



24) Remove the EARPIECE with the dental tool. Do not use it again. Discard it.

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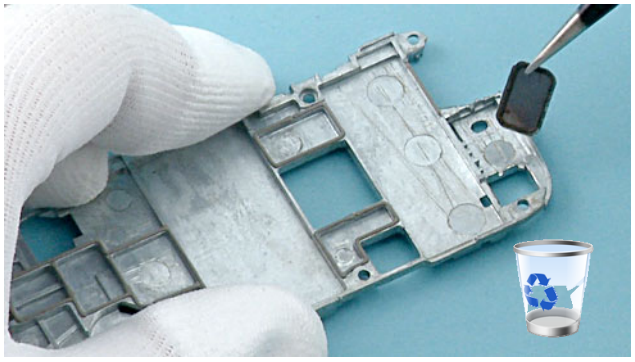
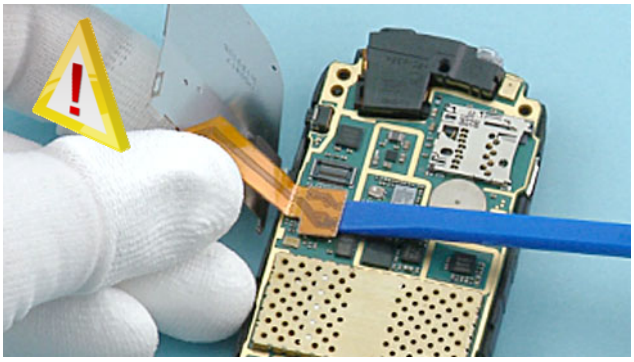
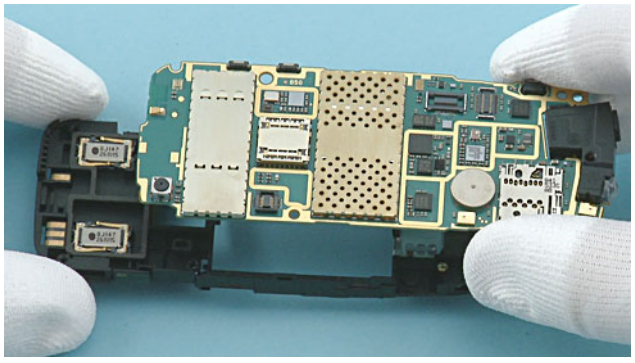


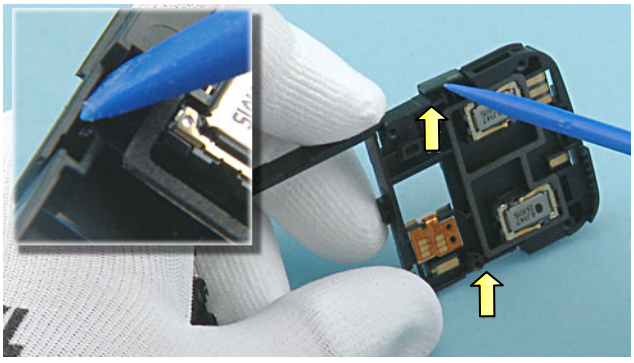
25) Remove the EARPIECE ADHESIVE with the tweezers. Do not use it again. Discard it. If there are some adhesive stains on the DECK remove them.



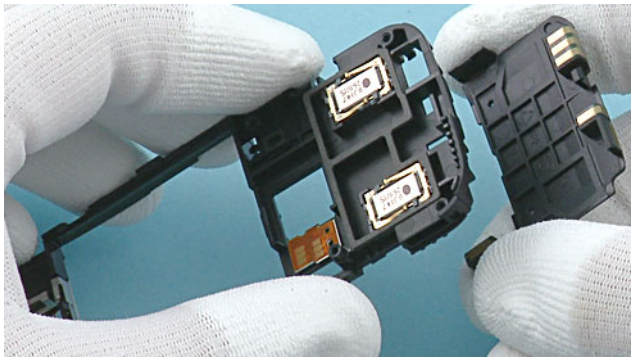
26) Open carefully the UI-FLEX ASSEMBLY connector with the SS-93. Be careful not to damage the connector or nearby components when opening the connector.



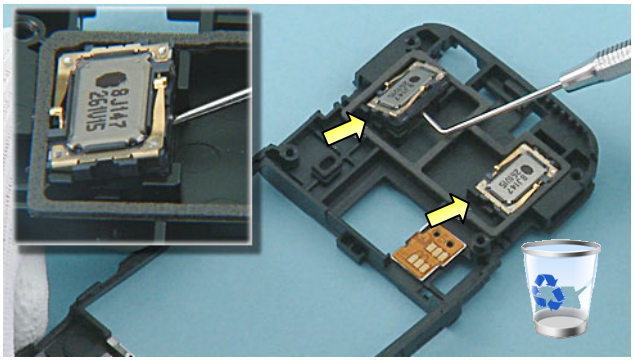
27) Lift up the LIGHT SWAP PWB.



28) Use the SS-93 to open the two clips holding the ANTENNA ASSEMBLY.



29) The ANTENNA ASSEMBLY can now be separated from the C-COVER.



30) Use the dental tool to remove the IHF SPEAKERS. Do not use them again. Discard Them.

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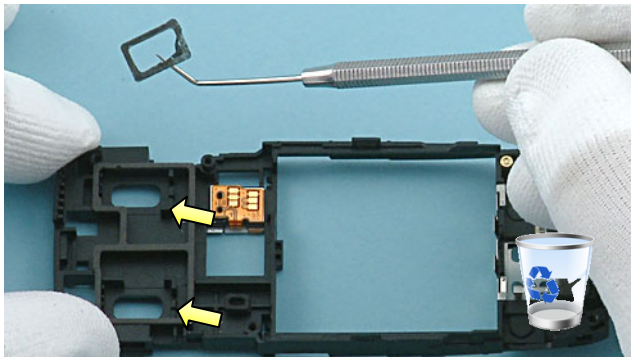
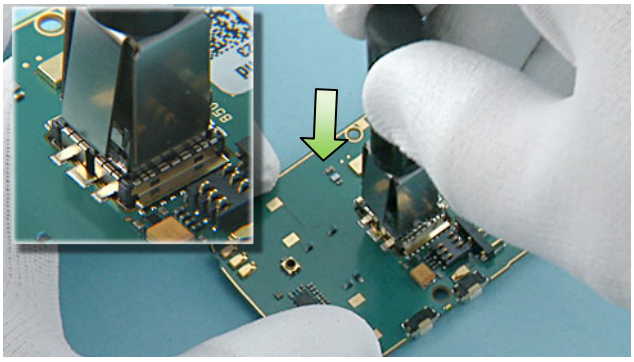
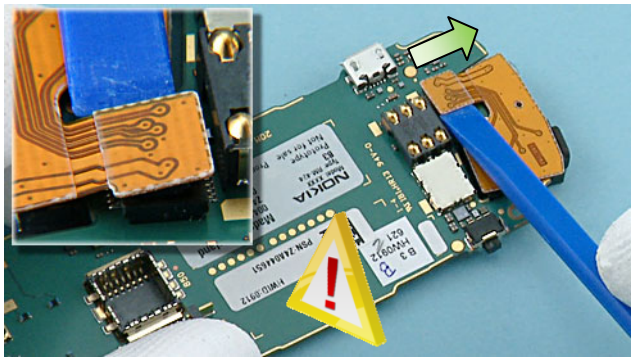


31) Also remove the IHF SPEAKER GASKETS. If there are some gasket remains on the C-COVER remove them. Do not use them again. Discard Them.



32) Release the CAMERA with the SS-100 by pressing the removal tool down until the holding clips are released. Pull the SS-100 up and remove the CAMERA.



33) Open the connector of the BOTTOM CONNECTOR ASSY with the SS-93. Then pull the assembly to the direction shown. Be careful not to damage the connector or nearby components while opening the connector.

34) Nokia 6720 Classic disassembly is now complete.

- END OF DISASSEMBLING -

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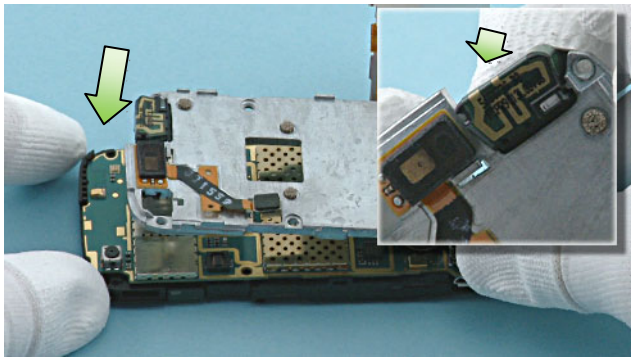
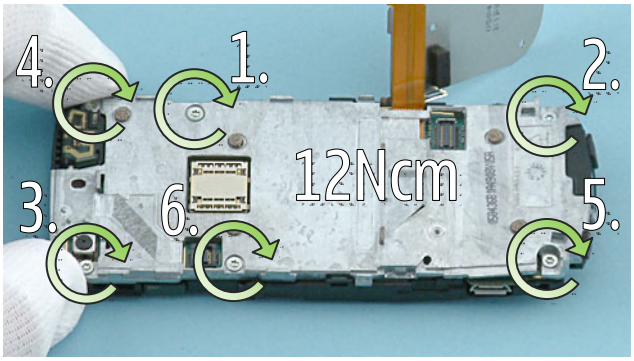
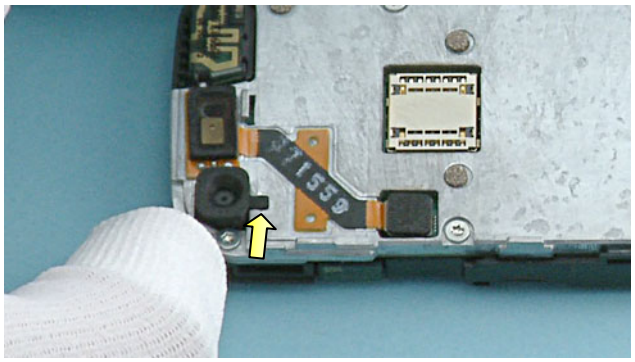
11. ASSEMBLY HINTS



1) Make sure the GPS ANTENNA ASSEMBLY is placed correctly in it's slot before placing the DECK.

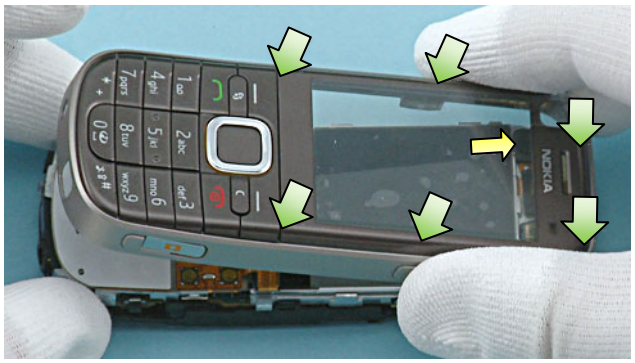


2) Tighten the Torx+ 5 screws to the torque of 12 Ncm in the order shown.

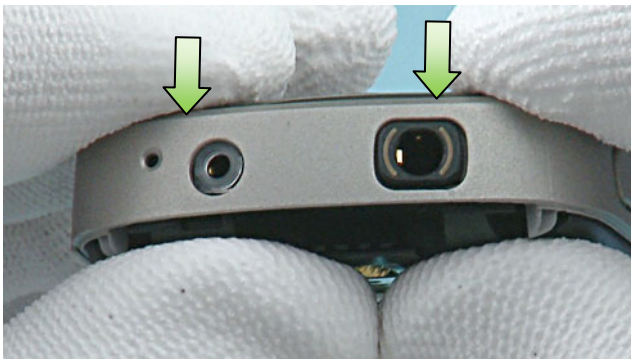


3) Make sure that the FRONT CAMERA GASKET is in place and the appendix is in gap and pointing to the bottom before placing the LCD.

4) When assembling the A-COVER make sure that the KEYMAT is placed underneath the A-COVER as shown.



5) While assembling the A-COVER to the module make sure that the FRONT CAMERA GASKET is properly in place. Then press the A-COVER so that 6 clips will get locked.



6) Finally press the bottom end of the A-COVER so that the AV-JACK and the DC-JACK are properly in place and two remaining clips will get locked.

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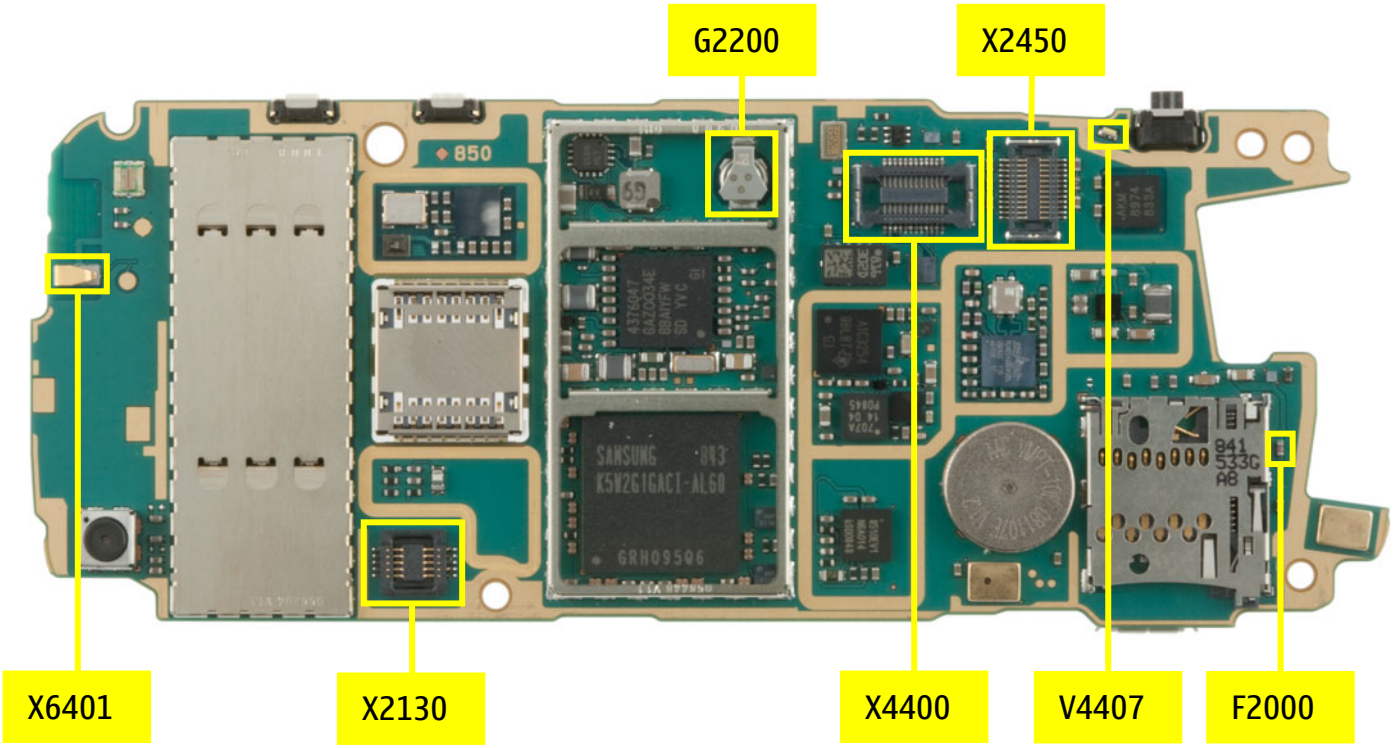
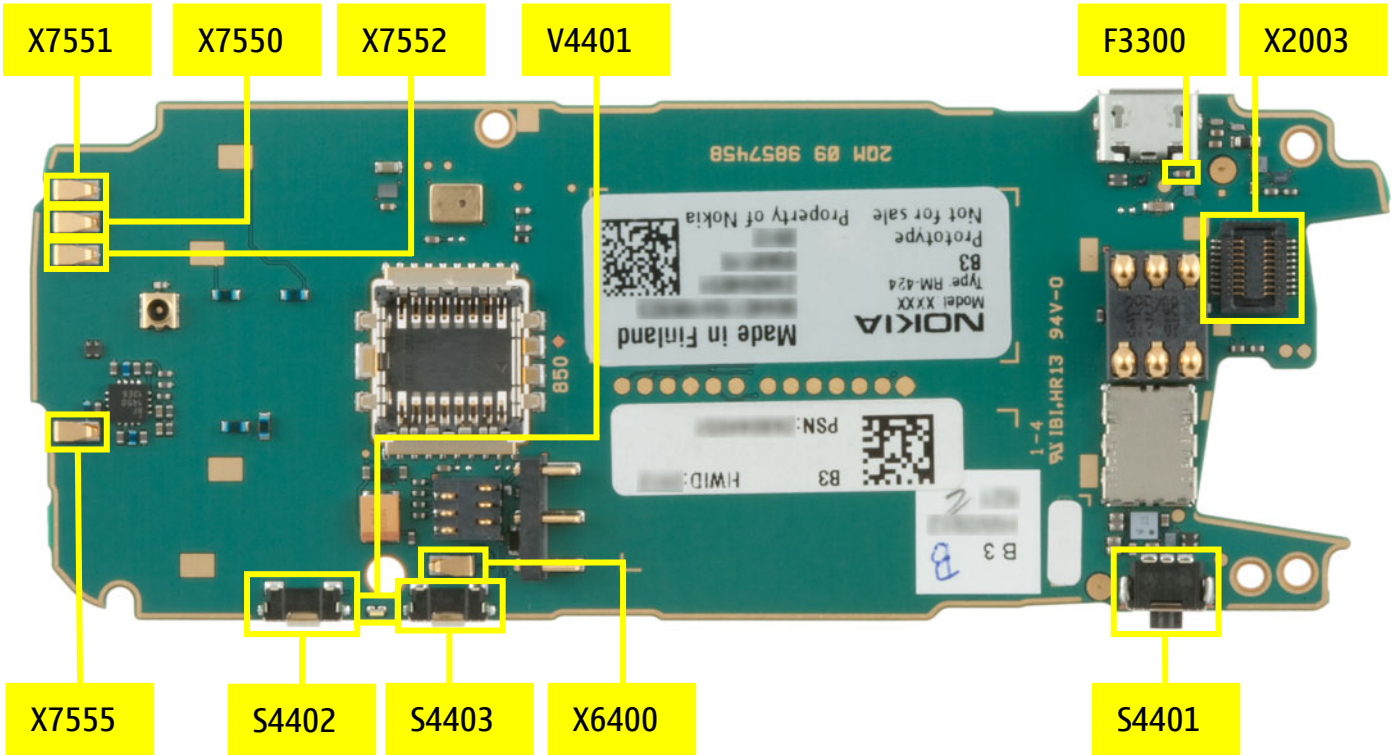
12. SOLDER COMPONENTS

Solder components only for Level 2





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